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first cross-sectional area, to multiple flexed positions, where the device lumen at the particular location has corresponding multiple cross-sectional areas which are greater than or less than the first cross-sectional area of the device lumen, and wherein at the particular location any of the cross-sectional areas of the device lumen does not exceed the cross-sectional area of the outer tube.

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3. (Amended) The multiple lumen access system of claim 1 further comprising a fluid reservoir connected to the proximal end of the auxiliary lumen.

4. (Amended) The multiple lumen access system of claim 1 further comprising a junction housing having a proximal end and a distal end to which the proximal end of the outer tube connects, the junction housing including a main channel in fluid communication with the device lumen and an auxiliary channel in fluid communication with the auxiliary lumen, the main channel and auxiliary channel diverging from each other to be non-intersecting in the junction housing.

5. (Amended) The multiple lumen access system of claim 4 further comprising a device lumen valve to provide sealing of the device lumen when medical devices are both present and absent from the device lumen, wherein the device lumen valve is provided as part of the junction housing and is in fluid communication with the main channel.

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7. (Amended) A multiple lumen access system of claim 6 wherein the main channel extends from the distal end of the junction housing and opens at the proximal end of the junction housing enabling introduction of fluids therethrough to the main channel.

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10. (Amended) A multiple lumen access system according to claim 9 wherein the main channel extends from the distal end of the junction housing and opens at the proximal end of the junction housing enabling introduction of fluids therethrough to the main channel.

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17. (Amended) The multiple lumen access system of claim 1 wherein two auxiliary lumens are located within the outer tube of the multiple lumen access device.

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21. (Amended) The multiple lumen access system of claim 1 wherein the auxiliary lumen has a maximum cross-section formed when the flexible wall is flexed away from the auxiliary lumen as far as possible, and the multiple lumen access device further includes an outlet for the auxiliary lumen formed in the outer tube, the outlet having an area that is greater than or equal to the maximum auxiliary lumen cross-section.

22. (Amended) The multiple lumen access system of claim 1 wherein there are two of the flexible walls that together form an inner tube within the outer tube.

23. (Amended) The multiple lumen access system of claim 22 wherein the inner tube has a distal end and a proximal end and an exterior surface and an interior surface, wherein the interior surface defines the device lumen, and wherein there are two of the auxiliary lumens located between the exterior surface of the inner tube and an interior surface of the outer tube.

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26. (Amended) The multiple lumen access system of claim 1 wherein the outer tube is made from a different material than the flexible wall.

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30. (Amended) A multiple lumen access system for use in providing an entry port into the human body for selectively introducing medical devices therethrough and for providing auxiliary access into the body, the system including a multiple lumen access device comprising:
a sheath defining within a device lumen having a distal end and a proximal end, wherein medical devices may be passed through the device lumen, and an auxiliary lumen having a distal end and a proximal end;
a proximal junction housing made of a soft, flexible material having a proximal end and a distal end to which the proximal end of the sheath connects, the junction housing including a main channel in fluid communication with the device lumen and an auxiliary channel in fluid communication with the auxiliary lumen, the main channel and auxiliary channel diverging from each other to be non-intersecting in the junction housing, the junction housing further defining a cavity on the proximal end in fluid communication with the main channel.

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~~33. (Amended) A multiple lumen access system according to claim 31 further including a device channel in the junction housing formed at an angle with the main channel and terminating at an internal end in fluid communication with the main channel, the cavity being located at an outermost end of the device channel, the device lumen valve being positioned in the cavity so that medical devices may be inserted therethrough and enter the main channel at an angle.~~

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~~37. (Amended) A multiple lumen access system according to claim 30 further including a flexible wall located within the sheath and having a distal end and a proximal end and opposite sides, wherein one side of the wall partly defines the device lumen and the other side of the wall partly defines the auxiliary lumen, the wall being sufficiently flexible to be movable from a relaxed position, where the device lumen at a particular location along its length has a first cross-sectional area, to multiple flexed positions, where the device lumen at the particular location has corresponding multiple cross-sectional areas which are greater than or less than the first cross-sectional area of the device lumen, and wherein at the particular location the sheath has a cross-sectional area that remains substantially unchanged and any of the cross-sectional areas of the device lumen does not exceed the cross-sectional area of the sheath.~~

B14 SUB C2
~~60. (Amended) A method for selectively introducing medical devices into a human body through a single entry port and for providing simultaneous auxiliary fluid access into the body, comprising:~~

~~providing a multiple lumen access device comprising:~~

~~an elongated body which has a distal end for introduction into the body and a proximal end, the elongated body having at a particular location along its length a cross-sectional area that remains substantially unchanged;~~

~~a device lumen through which medical devices may be passed defined within the elongated body, the device lumen having a distal end and a proximal end;~~

~~an auxiliary lumen defined within the elongated body and separately from the device lumen, the auxiliary lumen having a distal end and a proximal end; and~~

~~a flexible wall located within the elongated body having a distal end and a proximal end and opposite sides, wherein one side of the wall partly defines the device~~

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lumen and the other side of the wall partly defines the auxiliary lumen, the wall being sufficiently flexible to be movable from a first position, where the device lumen at the particular location has a first cross-sectional area, to multiple flexed positions, where the device lumen at the particular location has corresponding multiple cross-sectional areas which are greater than or less than the first cross-sectional area of the device lumen, and wherein at the particular location any of the cross-sectional areas of the device lumen does not exceed the cross-sectional area of the elongated body;

introducing the multiple lumen access device into the body with the distal ends of the device lumen and the auxiliary lumen being positioned within a vasculature of the human body; and

flowing a medical solution through the auxiliary lumen into the vasculature in the absence of a device in the device lumen to move the flexible wall from the first position to one of the flexed position.

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62. (Amended) The method of claim 60 further comprising the step of providing the multiple lumen access device with a fluid reservoir connected to the proximal end of the auxiliary lumen.

63. (Amended) The method of claim 60 further comprising the step of providing the multiple lumen access device with a device lumen valve to provide sealing of the device lumen when medical devices are both present and absent from the device lumen.

64. (Amended) The method of claim 63 further comprising the step of providing the multiple lumen access device with a junction housing having a proximal end and a distal end to which the proximal end of the elongated body connects, the junction housing including a main channel in fluid communication with the device lumen and an auxiliary channel in fluid communication with the auxiliary lumen, the main channel and auxiliary channel diverging from each other to be non-intersecting in the junction housing.

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67. (Amended) The method of claim 66 wherein the main channel extends from the distal end of the junction housing and opens at the proximal end of the junction housing enabling introduction of fluids therethrough to the main channel.

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70. (Amended) The method of claim 69 wherein the main channel extends from the distal end of the junction housing and opens at the proximal end of the junction housing enabling introduction of fluids therethrough to the main channel.

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75. (Amended) The method of claim 60 wherein two auxiliary lumens are located within the elongated body of the multiple lumen access device.

76. (Amended) The method of claim 60 wherein the distal ends of the two auxiliary lumens are located at different locations between the proximal and distal ends of the elongated body.

77. (Amended) The method of claim 60 wherein the multiple lumen access device comprises an inner tube formed by two of the flexible walls located within the elongated body, the inner tube having a distal end and a proximal end, and the inner tube having an exterior surface and an interior surface wherein the interior surface defines the device lumen, and two auxiliary lumens located between the exterior surface of the inner tube and an interior surface of the elongated body.

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79. (Amended) The method of claim 60 wherein the elongated body is made from a different material than the flexible wall.

REMARKS

Prior to the present Office Action, claims 1-11, 17, 18, 20-24, 26-37, 60-70 and 75-80 remain pending. Claims 1, 30, and 60 and independent claims, these claims are also generic to several various species of the invention that were previously withdrawn. Likewise, several of the pending dependent claims are also generic to two or more species. Applicants suggest that at this time it is not necessary or efficient to identify each and every generic claim, however, once any